DETAILS OF THE WEATHER OF THE MONTH IN THE UNITED STATES.

CYCLONES AND ANTICYCLONES.

LOWS.

	Al- berta.	North Pa- offic.	South Pa- cific.	North- ern Rocky Moun- tains.	Colo- rado.	Texas.	East Gulf.	South At- lantic.	Cen- tral.	Total.
October, 1920 Average num- ber, 1892-1912	6.0	1.0	2.0	0.0	1.0	1.0	0.0	1.0	0.0	12.0
	4.2	1.3	0.8	0.5	1.7	0.7	0.4	0.5	0.3	10.3

HIGHS.

	North Pacific.	South Pacific.	Alberta.	Plateau and Rocky Moun- tains region.	Hudson Bay.	Total.
October, 1920	3.0	3.0	4.0	0.0	1.0	11.0
Average number, 1892– 1912	2.8	1.0	3.0	1.2	0.6	8.5

CYCLONES AND ANTICYCLONES—THE WEATHER ELEMENTS.

By M. C. BENNETT, Acting Chief of Division.
[Weather Bureau, Washington, D. C., Dec. 2, 1920.]

PRESSURE AND WINDS.

The month opened with relatively low pressure in the northeastern and northwestern portions of the country, while elsewhere it was above the seasonal average, especially in the great central valleys. High pressure persisted in the Southeast throughout the month, except for a few days about the middle of the third decade, when a southwestern low area moved eastward and northeastward across that region; this HIGH being similar to the summer type of pressure over that section. Rather frequent moderately low areas moved across the northern portion of the country during the first half of the month, resulting in pressure being relatively low in that section during much of this period. However, during the latter half of the month much more pronounced low pressure areas moved occasionally from the Far Southwest and West, northeastward and eastward across the country, and were followed by relatively high areas of moderate The month closed with high pressure over the northern portions of the Great Plains and Rocky Mountain regions and from the Mississippi Valley eastward, except in the far northeast, while elsewhere low pressure obtained.

For the month as a whole, the average pressure was above the normal from the Mississippi Valley and western Gulf States eastward and also in the southern Pacific area; elsewhere it was generally below the seasonal average. The departures from the normal were everywhere small, being in no case greater than 0.14 inch.

The distribution of atmospheric pressure during October resulted in southerly winds throughout the eastern Great Plains, the central valleys, the region of the Great Lakes, and eastward in the northern border States. They were northeasterly in the coastal portion of the south Atlantic States. Elsewhere variable winds prevailed.

TEMPERATURE.

The month opened with temperatures below normal in the middle and south Atlantic and Gulf States, and

with frost as far south as central Louisiana and the northern portions of Mississippi, Alabama, Georgia, and South Carolina, while warmer weather was moving in over the Great Plains. Within the next few days there was a general warming up in all interior districts to readings above the seasonal average, and considerably warmer weather prevailed in the Atlantic coast States. About the middle of the first decade high temperatures for the season prevailed in the northern Great Plains, and on the 6th and 7th readings of 91° were reported from Bismarck, being the highest temperature of record for October for that place. On the other hand, temperatures somewhat below normal were quite general in. eastern and southern districts during the latter half of the decade. The first few days of the second decade were marked by temperatures considerably above the normal in the Plains States, the upper Mississippi Valley, and in the region of the Great Lakes, but at the same time much cooler weather prevailed in the far South-west. Temperature changes were unimportant throughout the second decade, except there was a sharp fall in temperature in the Southwest about the middle of the month. It was unseasonably warm throughout the interior of the country during this period and temperatures above the average persisted in all sections east of the Rocky Mountains. To the westward, however, lower temperatures prevailed, particularly in the Northwest where readings continued below normal. Temperatures continued unseasonably high during much of the third decade in nearly all eastern districts and were considerably below the seasonal average in most western sections. However, toward the latter part of the month much cooler weather overspread the eastern districts and freezing temperatures were experienced as far south as the northern portions of Alabama and Mississippi.

For the month as a whole unseasonably warm weather prevailed over much of the country east of the Rocky Mountains until near the close of the month, but temperatures continued below normal to the westward. In southeastern New England the warmest October in over 40 years was experienced, while in portions of New York and Pennsylvania it was reported as the warmest October in the history of the stations. During the last few days of the month much colder weather overspread all eastern districts, and by the morning of the 30th freezing weather prevailed southward to the northern portion of the cotton belt. In the Ohio and lower Missouri Valleys and from the central Great Plains northward the month averaged from 6° to 9° or more a day above normal, while west of the Rockies, except along the immediate Pacific coast, the temperatures averaged from 4° to 6° below the normal.

PRECIPITATION.

The tropical storm which was moving northward in the eastern part of the country at the close of September reached New England by the morning of the 1st. It caused heavy rainfall in nearly all Atlantic coast districts and was attended by shifting gales. Elsewhere little or no rain fell during the first several days of the month, except for showers in the Lake region and in the far Northwest. Shortly after the middle of the first decade precipitation was general from central California northward and in the northern Rocky Mountains; elsewhere little rain fell during this period. The beginning of the second decade was marked by rain in the northern